

PCT09

## RAW SEQUENCE LISTING

DATE: 06/18/2001

PATENT APPLICATION: US/09/743,731

TIME: 16:26:00

Input Set : A:\08106-004001.TXT

Output Set: N:\CRF3\06182001\I743731.raw

ENTERED

4 <110> APPLICANT: Smit, John  
 6 <120> TITLE OF INVENTION: CLEAVAGE OF CAULOBACTER PRODUCED  
 7 RECOMBINANT FUSION PROTEINS  
 9 <130> FILE REFERENCE: 08106-004001  
 11 <140> CURRENT APPLICATION NUMBER: 09/743,731  
 C--> 12 <141> CURRENT FILING DATE: 2001-04-25  
 14 <150> PRIOR APPLICATION NUMBER: PCT/CA99/00637  
 15 <151> PRIOR FILING DATE: 1999-07-14  
 17 <150> PRIOR APPLICATION NUMBER: CA 2,237,704  
 18 <151> PRIOR FILING DATE: 1998-07-14  
 20 <160> NUMBER OF SEQ ID NOS: 11  
 22 <170> SOFTWARE: FastSEQ for Windows Version 4.0  
 24 <210> SEQ ID NO: 1  
 25 <211> LENGTH: 15  
 26 <212> TYPE: PRT  
 27 <213> ORGANISM: Artificial Sequence  
 29 <220> FEATURE:  
 30 <223> OTHER INFORMATION: Fusion protein  
 32 <400> SEQUENCE: 1  
 33 Leu Ser Glu Ile Lys Gly Val Ile Val His Arg Leu Glu Gly Val  
 34 1 5 10 15  
 36 <210> SEQ ID NO: 2  
 37 <211> LENGTH: 15  
 38 <212> TYPE: PRT  
 39 <213> ORGANISM: Artificial Sequence  
 41 <220> FEATURE:  
 42 <223> OTHER INFORMATION: Fusion protein  
 44 <400> SEQUENCE: 2  
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 48 <210> SEQ ID NO: 3  
 49 <211> LENGTH: 12  
 50 <212> TYPE: PRT  
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 53 <220> FEATURE:  
 54 <223> OTHER INFORMATION: Synthetically generated peptide  
 56 <400> SEQUENCE: 3  
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 61 <211> LENGTH: 3300  
 62 <212> TYPE: DNA  
 63 <213> ORGANISM: Caulobacter crescentus  
 65 <220> FEATURE:  
 66 <221> NAME/KEY: CDS  
 67 <222> LOCATION: (101)...(3179)  
 69 <400> SEQUENCE: 4

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70 gctattgtcg acgtatgacg tttgctctat agccatcgct gctcccatgc gcgccactcg      60
71 gtcgcagggg gtgtgggatt ttttttggga gacaatcctc atg gcc tat acg acg      115
72                                     Met Ala Tyr Thr Thr
73                                     1           5
75 gcc cag ttg gtg act gcg tac acc aac gcc aac ctc ggc aag gcg cct      163
76 Ala Gln Leu Val Thr Ala Tyr Thr Asn Ala Asn Leu Gly Lys Ala Pro
77                                     10          15          20
79 gac gcc gcc acc acg ctg acg ctc gac gcg tac gcg act caa acc cag      211
80 Asp Ala Ala Thr Thr Leu Thr Leu Asp Ala Tyr Ala Thr Gln Thr Gln
81                                     25          30          35
83 acg ggc ggc ctc tcg gac gcc gct gcg ctg acc aac acc ctg aag ctg      259
84 Thr Gly Gly Leu Ser Asp Ala Ala Leu Thr Asn Thr Leu Lys Leu
85                                     40          45          50
87 gtc aac agc acg acg gct gtt gcc atc cag acc tac cag ttc ttc acc      307
88 Val Asn Ser Thr Thr Ala Val Ala Ile Gln Thr Tyr Gln Phe Phe Thr
89                                     55          60          65
91 ggc gtt gcc ccg tcg gcc gct ggt ctg gac ttc ctg gtcgac tcg acc      355
92 Gly Val Ala Pro Ser Ala Ala Gly Leu Asp Phe Leu Val Asp Ser Thr
93 70                                     75          80          85
95 acc aac acc aac gac ctg aac gac gcg tac tac tcg aag ttc gct cag      403
96 Thr Asn Thr Asn Asp Leu Asn Asp Ala Tyr Tyr Ser Lys Phe Ala Gln
97                                     90          95          100
99 gaa aac cgc ttc atc aac ttc tcg atc aac ctg gcc acg ggc gcc ggc      451
100 Glu Asn Arg Phe Ile Asn Phe Ser Ile Asn Leu Ala Thr Gly Ala Gly
101                                     105          110          115
103 gcc ggc gcg acg gct ttc gcc gcc gcc tac acg ggc gtt tcg tac gcc      499
104 Ala Gly Ala Thr Ala Phe Ala Ala Ala Tyr Thr Gly Val Ser Tyr Ala
105                                     120          125          130
107 cag acg gtc gcc acc gcc tat gac aag atc atc ggc aac gcc gtc gcg      547
108 Gln Thr Val Ala Thr Ala Tyr Asp Lys Ile Ile Gly Asn Ala Val Ala
109                                     135          140          145
111 acc gcc gct ggc gtc gac gtc gcg gcc gcc gtg gct ttc ctg agc cgc      595
112 Thr Ala Ala Gly Val Asp Val Ala Ala Ala Val Ala Phe Leu Ser Arg
113 150                                     155          160          165
115 cag gcc aac atc gac tac ctg acc gcc ttc gtg cgc gcc aac acg ccg      643
116 Gln Ala Asn Ile Asp Tyr Leu Thr Ala Phe Val Arg Ala Asn Thr Pro
117                                     170          175          180
119 ttc acg gcc gct gcc gac atc gat ctg gcc gtc aag gcc gcc ctg atc      691
120 Phe Thr Ala Ala Ala Asp Ile Asp Leu Ala Val Lys Ala Ala Leu Ile
121                                     185          190          195
123 ggc acc atc ctg aac gcc gcc acg gtg tcg ggc atc ggt ggt tac gcg      739
124 Gly Thr Ile Leu Asn Ala Ala Thr Val Ser Gly Ile Gly Gly Tyr Ala
125                                     200          205          210
127 acc gcc acg gcc gcg atg atc aac gac ctg tcg gac ggc gcc ctg tcg      787
128 Thr Ala Thr Ala Ala Met Ile Asn Asp Leu Ser Asp Gly Ala Leu Ser
129                                     215          220          225
131 acc gac aac gcg gct ggc gtg aac ctg ttc acc gcc tat ccg tcg tcg      835
132 Thr Asp Asn Ala Ala Gly Val Asn Leu Phe Thr Ala Tyr Pro Ser Ser
133 230                                     235          240          245

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135	ggc	gtg	tcg	ggt	tcg	acc	ctc	tcg	ctg	acc	acc	ggc	acc	gac	acc	ctg	883
136	Gly	Val	Ser	Gly	Ser	Thr	Leu	Ser	Leu	Thr	Thr	Gly	Thr	Asp	Thr	Leu	
137					250					255					260		
139	acg	ggc	acc	gcc	aac	aac	gac	acg	ttc	gtt	gcg	ggt	gaa	gtc	gcc	ggc	931
140	Thr	Gly	Thr	Ala	Asn	Asn	Asp	Thr	Phe	Val	Ala	Gly	Glu	Val	Ala	Gly	
141				265					270					275			
143	gct	gcg	acc	ctg	acc	gtt	ggc	gac	acc	ctg	agc	ggc	ggt	gct	ggc	acc	979
144	Ala	Ala	Thr	Leu	Thr	Val	Gly	Asp	Thr	Leu	Ser	Gly	Gly	Ala	Gly	Thr	
145			280					285					290				
147	gac	gtc	ctg	aac	tgg	gtg	caa	gct	gct	gcg	gtt	acg	gct	ctg	ccg	acc	1027
148	Asp	Val	Leu	Asn	Trp	Val	Gln	Ala	Ala	Ala	Val	Thr	Ala	Leu	Pro	Thr	
149		295					300					305					
151	ggc	gtg	acg	atc	tcg	ggc	atc	gaa	acg	atg	aac	gtg	acg	tcg	ggc	gct	1075
152	Gly	Val	Thr	Ile	Ser	Gly	Ile	Glu	Thr	Met	Asn	Val	Thr	Ser	Gly	Ala	
153	310				315					320					325		
155	gcg	atc	acc	ctg	aac	acg	tct	tcg	ggc	gtg	acg	ggt	ctg	acc	gcc	ctg	1123
156	Ala	Ile	Thr	Leu	Asn	Thr	Ser	Ser	Gly	Val	Thr	Gly	Leu	Thr	Ala	Leu	
157				330					335				340				
159	aac	acc	aac	acc	agc	ggc	gcg	gct	caa	acc	gtc	acc	gcc	ggc	gct	ggc	1171
160	Asn	Thr	Asn	Thr	Ser	Gly	Ala	Ala	Gln	Thr	Val	Thr	Ala	Gly	Ala	Gly	
161				345				350					355				
163	cag	aac	ctg	acc	gcc	acg	acc	gcc	gct	caa	gcc	gcg	aac	aac	gtc	gcc	1219
164	Gln	Asn	Leu	Thr	Ala	Thr	Thr	Ala	Ala	Gln	Ala	Ala	Asn	Asn	Val	Ala	
165			360					365					370				
167	gtc	gac	ggg	cgc	gcc	aac	gtc	acc	gtc	gcc	tcg	acg	ggc	gtg	acc	tcg	1267
168	Val	Asp	Gly	Arg	Ala	Asn	Val	Thr	Val	Ala	Ser	Thr	Gly	Val	Thr	Ser	
169		375					380					385					
171	ggc	acg	acc	acg	gtc	ggc	gcc	aac	tcg	gcc	gct	tcg	ggc	acc	gtg	tcg	1315
172	Gly	Thr	Thr	Thr	Val	Gly	Ala	Asn	Ser	Ala	Ala	Ser	Gly	Thr	Val	Ser	
173	390				395				400						405		
175	gtg	agc	gtc	gcg	aac	tcg	agc	acg	acc	acc	acg	ggc	gct	atc	gcc	gtg	1363
176	Val	Ser	Val	Ala	Asn	Ser	Ser	Thr	Thr	Thr	Thr	Gly	Ala	Ile	Ala	Val	
177				410					415					420			
179	acc	ggt	ggt	acg	gcc	gtg	acc	gtg	gct	caa	acg	gcc	ggc	aac	gcc	gtg	1411
180	Thr	Gly	Gly	Thr	Ala	Val	Thr	Val	Ala	Gln	Thr	Ala	Gly	Asn	Ala	Val	
181				425				430					435				
183	aac	acc	acg	ttg	acg	caa	gcc	gac	gtg	acc	gtg	acc	ggt	aac	tcc	agc	1459
184	Asn	Thr	Thr	Leu	Thr	Gln	Ala	Asp	Val	Thr	Val	Thr	Gly	Asn	Ser	Ser	
185			440					445					450				
187	acc	acg	gcc	gtg	acg	gtc	acc	caa	acc	gcc	gcc	gcc	acc	gcc	ggc	gct	1507
188	Thr	Thr	Ala	Val	Thr	Val	Thr	Gln	Thr	Ala	Ala	Ala	Thr	Ala	Gly	Ala	
189		455					460					465					
191	acg	gtc	gcc	ggt	cgc	gtc	aac	ggc	gct	gtg	acg	atc	acc	gac	tct	gcc	1555
192	Thr	Val	Ala	Gly	Arg	Val	Asn	Gly	Ala	Val	Thr	Ile	Thr	Asp	Ser	Ala	
193	470				475				480						485		
195	gcc	gcc	tcg	gcc	acg	acc	gcc	ggc	aag	atc	gcc	acg	gtc	acc	ctg	ggc	1603
196	Ala	Ala	Ser	Ala	Thr	Ala	Gly	Lys	Ile	Ala	Thr	Val	Thr	Leu	Gly		
197				490				495					500				
199	agc	ttc	ggc	gcc	gcc	acg	atc	gac	tcg	agc	gct	ctg	acg	acc	gtc	aac	1651

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200	Ser	Phe	Gly	Ala	Ala	Thr	Ile	Asp	Ser	Ser	Ala	Leu	Thr	Thr	Val	Asn	
201				505					510					515			
203	ctg	tcg	ggc	acg	ggc	acc	tcg	ctc	ggc	atc	ggc	cgc	ggc	gct	ctg	acc	1699
204	Leu	Ser	Gly	Thr	Gly	Thr	Ser	Leu	Gly	Ile	Gly	Arg	Gly	Ala	Leu	Thr	
205				520					525					530			
207	gcc	acg	ccg	acc	gcc	aac	acc	ctg	acc	ctg	aac	gtc	aat	ggt	ctg	acg	1747
208	Ala	Thr	Pro	Thr	Ala	Asn	Thr	Leu	Thr	Leu	Asn	Val	Asn	Gly	Leu	Thr	
209				535					540					545			
211	acg	acc	ggc	gcg	atc	acg	gac	tcg	gaa	gcg	gct	gct	gac	gat	ggt	ttc	1795
212	Thr	Thr	Gly	Ala	Ile	Thr	Asp	Ser	Glu	Ala	Ala	Ala	Asp	Asp	Gly	Phe	
213	550					555					560					565	
215	acc	acc	atc	aac	atc	gct	ggt	tcg	acc	gcc	tct	tcg	acg	atc	gcc	agc	1843
216	Thr	Thr	Ile	Asn	Ile	Ala	Gly	Ser	Thr	Ala	Ser	Ser	Thr	Ile	Ala	Ser	
217					570					575					580		
219	ctg	gtg	gcc	gcc	gac	gcg	acg	acc	ctg	aac	atc	tcg	ggc	gac	gct	cgc	1891
220	Leu	Val	Ala	Ala	Asp	Ala	Thr	Thr	Leu	Asn	Ile	Ser	Gly	Asp	Ala	Arg	
221				585					590					595			
223	gtc	acg	atc	acc	tcg	cac	acc	gct	gcc	gcc	ctg	acg	ggc	atc	acg	gtg	1939
224	Val	Thr	Ile	Thr	Ser	His	Thr	Ala	Ala	Ala	Leu	Thr	Gly	Ile	Thr	Val	
225				600					605					610			
227	acc	aac	agc	gtt	ggt	gcg	acc	ctc	ggc	gcc	gaa	ctg	gcg	acc	ggt	ctg	1987
228	Thr	Asn	Ser	Val	Gly	Ala	Thr	Leu	Gly	Ala	Glu	Leu	Ala	Thr	Gly	Leu	
229				615					620					625			
231	gtc	ttc	acg	ggc	ggc	gct	ggc	cgt	gac	tcg	atc	ctg	ctg	ggc	gcc	acg	2035
232	Val	Phe	Thr	Gly	Gly	Ala	Gly	Arg	Asp	Ser	Ile	Leu	Leu	Gly	Ala	Thr	
233	630					635					640					645	
235	acc	aag	gcg	atc	gtc	atg	ggc	gcc	ggc	gac	gac	acc	gtc	acc	gtc	agc	2083
236	Thr	Lys	Ala	Ile	Val	Met	Gly	Ala	Gly	Asp	Asp	Thr	Val	Thr	Val	Ser	
237					650					655						660	
239	tcg	gcg	acc	ctg	ggc	gct	ggt	ggt	tcg	gtc	aac	ggc	ggc	gac	ggc	acc	2131
240	Ser	Ala	Thr	Leu	Gly	Ala	Gly	Gly	Ser	Val	Asn	Gly	Gly	Asp	Gly	Thr	
241				665					670					675			
243	gac	gtt	ctg	gtg	gcc	aac	gtc	aac	ggt	tcg	tcg	ttc	agc	gct	gac	ccg	2179
244	Asp	Val	Leu	Val	Ala	Asn	Val	Asn	Gly	Ser	Ser	Phe	Ser	Ala	Asp	Pro	
245				680					685					690			
247	gcc	ttc	ggc	ggc	ttc	gaa	acc	ctc	cgc	gtc	gct	ggc	gcg	gcg	gct	caa	2227
248	Ala	Phe	Gly	Gly	Phe	Glu	Thr	Leu	Arg	Val	Ala	Gly	Ala	Ala	Ala	Gln	
249				695					700					705			
251	ggc	tcg	cac	aac	gcc	aac	ggc	ttc	acg	gct	ctg	caa	ctg	ggc	gcg	acg	2275
252	Gly	Ser	His	Asn	Ala	Asn	Gly	Phe	Thr	Ala	Leu	Gln	Leu	Gly	Ala	Thr	
253	710					715					720					725	
255	gcg	ggt	gcg	acg	acc	ttc	acc	aac	gtt	gcg	gtg	aat	gtc	ggc	ctg	acc	2323
256	Ala	Gly	Ala	Thr	Thr	Phe	Thr	Asn	Val	Ala	Val	Asn	Val	Gly	Leu	Thr	
257					730					735					740		
259	gtt	ctg	gcg	gct	ccg	acc	ggt	acg	acg	acc	gtg	acc	ctg	gcc	aac	gcc	2371
260	Val	Leu	Ala	Ala	Pro	Thr	Gly	Thr	Thr	Thr	Val	Thr	Leu	Ala	Asn	Ala	
261					745					750					755		
263	acg	ggc	acc	tcg	gac	gtg	ttc	aac	ctg	acc	ctg	tcg	tcc	tcg	gcc	gct	2419
264	Thr	Gly	Thr	Ser	Asp	Val	Phe	Asn	Leu	Thr	Leu	Ser	Ser	Ser	Ala	Ala	

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265	760	765	770	
267	ctg gcc gct ggt acg gtt gcg ctg gct ggc gtc gag acg gtg aac atc	2467		
268	Leu Ala Ala Gly Thr Val Ala Leu Ala Gly Val Glu Thr Val Asn Ile			
269	775 780 785			
271	gcc gcc acc gac acc aac acg acc gct cac gtc gac acg ctg acg ctg	2515		
272	Ala Ala Thr Asp Thr Asn Thr Thr Ala His Val Asp Thr Leu Thr Leu			
273	790 795 800 805			
275	caa gcc acc tcg gcc aag tcg atc gtg gtg acg ggc aac gcc ggt ctg	2563		
276	Gln Ala Thr Ser Ala Lys Ser Ile Val Val Thr Gly Asn Ala Gly Leu			
277	810 815 820			
279	aac ctg acc aac acc ggc aac acg gct gtc acc agc ttc gac gcc agc	2611		
280	Asn Leu Thr Asn Thr Gly Asn Thr Ala Val Thr Ser Phe Asp Ala Ser			
281	825 830 835			
283	gcc gtc acc ggc acg gct ccg gct gtg acc ttc gtg tcg gcc aac acc	2659		
284	Ala Val Thr Gly Thr Ala Pro Ala Val Thr Phe Val Ser Ala Asn Thr			
285	840 845 850			
287	acg gtg ggt gaa gtc gtc acg atc cgc ggc ggc gct ggc gcc gac tcg	2707		
288	Thr Val Gly Glu Val Val Thr Ile Arg Gly Gly Ala Gly Ala Asp Ser			
289	855 860 865			
291	ctg acc ggt tcg gcc acc gcc aat gac acc atc atc ggt ggc gct ggc	2755		
292	Leu Thr Gly Ser Ala Thr Ala Asn Asp Thr Ile Ile Gly Gly Ala Gly			
293	870 875 880 885			
295	gct gac acc ctg gtc tac acc ggc ggt acg gac acc ttc acg ggt ggc	2803		
296	Ala Asp Thr Leu Val Tyr Thr Gly Gly Thr Asp Thr Phe Thr Gly Gly			
297	890 895 900			
299	acg ggc gcg gat atc ttc gat atc aac gct atc ggc acc tcg acc gct	2851		
300	Thr Gly Ala Asp Ile Phe Asp Ile Asn Ala Ile Gly Thr Ser Thr Ala			
301	905 910 915			
303	ttc gtg acg atc acc gac gcc gct gtc ggc gac aag ctc gac ctc gtc	2899		
304	Phe Val Thr Ile Thr Asp Ala Ala Val Gly Asp Lys Leu Asp Leu Val			
305	920 925 930			
307	ggc atc tcg acg aac ggc gct atc gct gac ggc gcc ttc ggc gct gcg	2947		
308	Gly Ile Ser Thr Asn Gly Ala Ile Ala Asp Gly Ala Phe Gly Ala Ala			
309	935 940 945			
311	gtc acc ctg ggc gct gct gcg acc ctg gct cag tac ctg gac gct gct	2995		
312	Val Thr Leu Gly Ala Ala Ala Thr Leu Ala Gln Tyr Leu Asp Ala Ala			
313	950 955 960 965			
315	gct gcc ggc gac ggc agc ggc acc tcg gtt gcc aag tgg ttc cag ttc	3043		
316	Ala Ala Gly Asp Gly Ser Gly Thr Ser Val Ala Lys Trp Phe Gln Phe			
317	970 975 980			
319	ggc ggc gac acc tat gtc gtc gtt gac agc tcg gct ggc gcg acc ttc	3091		
320	Gly Gly Asp Thr Tyr Val Val Val Asp Ser Ser Ala Gly Ala Thr Phe			
321	985 990 995			
323	gtc agc ggc gct gac gcg gtg atc aag ctg acc ggt ctg gtc acg ctg	3139		
324	Val Ser Gly Ala Asp Ala Val Ile Lys Leu Thr Gly Leu Val Thr Leu			
325	1000 1005 1010			
327	acc acc tcg gcc ttc gcc acc gaa gtc ctg acg ctc gcc t aagcgaacgt	3189		
328	Thr Thr Ser Ala Phe Ala Thr Glu Val Leu Thr Leu Ala			
329	1015 1020 1025			

VERIFICATION SUMMARY

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L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date